

## Imagery Standards Management Committee (ISMC)

### Mission:

The mission of the ISMC is to provide the focal point for standards in the imagery community, to include members of the Intelligence Community (IC). The duties of the ISMC shall be to lead, manage, integrate, and coordinate imagery community efforts to develop and implement imagery standards in information systems. The ISMC will establish, develop, implement, and promulgate new standards or specify existing standards, in accordance with other standards-related working groups, to enable compatibility and use of imagery within information systems. This mission will be accomplished in coordination with DISA, the DoD Executive Agent for Information Technology (IT) Standards and the Intelligence Systems Secretariat (ISS) Standards Panel.

The Charter is dated 2 December 1994. The ISMC meets jointly with the Geospatial Standards Management Committee (GSMC).

### Objectives:

To oversee all imagery community technical standards which includes standards interoperability activities for imagery community within the scope of NIMA. The imagery community includes all organizations or programs within the Intelligence Community and the non-intelligence civil agencies that produce or use imagery.

### Key Accomplishments:

- Established the National Imagery Transmission Format (NITF), version 2.0 (MIL-STD 2500) as the interoperable imagery exchange format (Post Desert

Shield/Desert Storm) by building upon NITF 1.1 limitations. The enhancement included interoperable data compression techniques using COTS/International Standards Organization (ISO) standards; establishment of a tactical communications protocol for imagery transmission over simplex wire or radio nets; established common graphics standards for annotation of imagery products.

- Established Technical Working Groups for imagery standardization and interoperability:

  - NITF Technical Board. The NTB approves all technical enhancements to NITF Standards (format, compression, and graphics through its sub-ordinate working groups).

  - USIGS Motion Imagery Standards Board. The MISB coordinates and influences commercial standards and practices concerning all aspects of motion imagery, motion imagery compression, and DoD Hi-Definition TV/Digital Motion Imagery standards.

- Enhanced NITF 2.0 to NITF 2.1 to include additional requirements for Y2K, DCID 1/7 Security, Multi-spectral Imagery (MSI), and Hyper-spectral Imagery (HIS) data.

- Established DoD requirements within ISO (Sub Committee 29) for the Joint Photographic Experts Group (JPEG) 2000 development activities; JPEG 2000 has over 150 companies collaborating on a common, open COTS standard for an advanced wavelet compression technique.

- Through joint coordination with the C/S/As, developed the compendium of NITF Support Data Extensions (SDE) that further define specific

imagery, Geospatial, and complex synthetic aperture radar data beyond the core NITF format.

- In coordination with USAF (SAF/AQIJ) developed a NATO Standardization Agreement based upon NITF 2.1 to achieve interoperability of airborne imagery systems between Nations. Co-developed with the mapping working groups within NATO, the Geospatial Support Data Extension (GEOSDE) for NATO and DoD imagery data. Additional work with SAF(AQIJ) involved the introduction of applicable US SDEs into NATO to further improve combined Airborne ISR capabilities. Serves as the US/NATO coordination focal point to keep NITF 2.1 and the NATO Secondary Imagery Format (NSIF - STANAG 4545) under Configuration Management.

- Developing the NITF Standards (NITFS) implementation profile for NIMA's USIGS.

- Develop and coordinate a US/NATO standards profile of NITF 2.1/NATO Secondary Imagery Format (NSIF) under the ISO Basic Imagery Interchange Format within the ISO Sub-Committee 24.

- Serves as the focal point for Imagery related US Message Text Format (USMTF) issue and coordination with the USMTF Standards Management Committee (USMTF SMC). Coordinates imagery issues with the other SMC's (SSMC, GSMC).

FY00-01 Funding Status:

NIMA fully funds the Standards development Process at the US Civil Federal Government, DoD, NATO, ABCA, and International Standards Organization level for imagery data exchange formats and data compression. NIMA also funds the NIMA NITF Laboratory, managed by DISA Joint Interoperability

Test Command (JITC), to conduct various Imagery and Compression R&D and testing initiatives.

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